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a5
1-claim

- 1) A system for detecting a watermark in host data which includes:
a watermark detection mechanism which utilizes knowledge of the characteristics of a watermark to detect the present of a watermark, and
a filter which removes aspects of the host data that are not carrying watermark data, thereby enhancing the signal to noise ratios of the watermark signal.
- 2) The system recited in claim 1 where the host data is image data.
- 3) The system recited in claim 1 where the host data is audio data.
- 4) The system recited in claim 1 where the host data is video data.
- 5) The method of extracting digital watermark data from host data which includes, pre-filtering said host data prior to the watermark detection operation thereby enhancing the signal to noise ratios of the watermark signal.
- 6) The method recited in claim 5 wherein said pre-filtering consists of first applying a highpass operator to said host data and then applying a nonlinear operator to said data.
- 7) The method of claim 5 wherein the host data is image data.
- 8) The method of claim 5 wherein the host data is audio data.
- 9) The method of claim 5 wherein the host data is video data.
- 10) The method of claim 6 wherein said highpass operator is a Laplacian operator.
- 11) The method of claim 6 wherein said nonlinear operator is a Signum operator.

